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# BULLETIN

OF THE

University of New Mexico

WHOLE NO. 72

CATALOGUE SERIES

DECEMBER, 1913 ?

VOLUME 26, NO. 2

## PRELIMINARY ANNOUNCEMENT

CORRESPONDENCE STUDY  
DEPARTMENT

ALBUQUERQUE, NEW MEXICO

PUBLISHED QUARTERLY BY THE UNIVERSITY OF NEW MEXICO  
ENTERED MAY 1, 1906, AT ALBUQUERQUE, N. M., AS SECOND CLASS MATTER  
UNDER ACT OF CONGRESS OF JULY 16, 1894

## **Departments and Activities of the Extension Division**

**Correspondence Study** in college and vocational subjects under the direction of the University Faculty.

**Lectures** in series, with syllabi, for study-clubs; single lectures for special groups and general audiences.

**Extension Teaching** in co-operation with educational institutions conducting continuation and evening schools.

**Debating and Public Discussions** stimulated and organized by state contest, bulletins containing formulated questions with briefs and bibliographies, and library loan material.

**General Information** on matters pertaining to education, state and local government, public health, civic improvement and other subjects of special but common interest.

**Surveys, Research, and Investigation** in fields and on subjects of community and state importance.

**Suggestive Aid** for county, town and municipal boards, commissions and councils; school boards, commercial clubs, civic and economic betterment associations.

**Exhibits, Conferences and Institutes** for public information upon vocational, educational and social welfare matters.

## PURPOSE.

*The purpose of the Extension Division is to take the University to the home.* It undertakes, among other things, to give instruction to the ambitious persons who, for various reasons, cannot attend the University.

## UNIVERSITY LECTURERS.

With this aim in view the Extension Division offers courses in two groups, lecture courses and correspondence study courses. Lecture courses will be given by University professors at convenient times and places, upon arrangement with the director of the Extension Division. Lectures and lecturers available will be announced later.

## TWO GENERAL COURSES.

Correspondence study courses are formal or informal. Formal courses require the preparation of lesson papers, which are forwarded to the professor in charge of the work, to be corrected carefully and returned to the student. Informal courses require no lesson papers, but the student is expected to do systematic reading, and is allowed the privilege of inquiry in regard to troublesome matters in the course. Formal courses will be given in practically all subjects taught in the University. There will be both preparatory and college courses. Students completing formal courses are given credit the same as for residence work, but no

University credit is allowed for informal courses. Practically any formal course may be taken informally, when the student shows reasons for not taking the course formally.

### PERSONS TO BE HELPED.

Various classes of people will thus be reached by the University. Among these are: (1) the student who has attended a high school not fully accredited and still needs additional units to meet the entrance requirements; (2) the teacher who is called upon to teach subjects in which he or she has not had sufficient or recent instruction; (3) the person who desires a college education, yet is prevented from obtaining one by daily occupation or financial considerations; (4) the business or professional man who wishes information along lines related to his business or occupation, e. g., miners who wish to know more about mineralogy, or bankers who desire to have a better understanding of proposed banking measures and reforms; (5) those who are ambitious and desire promotion, no matter what their walk of life may be; (6) those who wish a wider knowledge of, and a keener insight into modern problems.

### PROFESSORS IN CHARGE.

*The character of the instruction* is as nearly as possible the same as that of the classroom. Only the pro-

fessors in charge of classes here give the work. In this connection, especial emphasis needs to be placed on one point: *No student assistant will be assigned to reading the lesson papers*, as is done in a number of other institutions. It is the desire of this department to maintain the high level of instruction given in residence, and we believe this can be done only by using the best teaching ability.

To carry out the idea of making the correspondence courses equivalent to those of the classroom, every three-hour course has been divided into fifty lessons, and each lesson paper made to correspond approximately to the daily recitation.

### THE ADVANTAGES.

*The advantages of correspondence study instruction are:*

(1) The student receives individual attention from the instructor.

(2) The student can advance as rapidly as his time and ability permit.

(3) He develops his individuality. In correspondence work every student stands on his own merits. He neither depends upon a fellow student to prepare his lesson, nor relies upon a large class to avoid recitation. Moreover, it is a principle of psychology that to express a thing in writing is the best way to understand and fix it in the mind.

## EXPENSES.

Expenses are made as low as a high grade of work will allow. Low tuition fees are charged; these being fixed at the lowest rate possible where the student's interests are placed foremost. Under a system of a cheap-price instruction the lesson papers are generally neglected or illy considered by student assistants. For each three-hour course, when lesson papers are corrected and returned, the tuition fee is \$13.50, but for the informal course, only \$3.50. Preparatory courses covering the period of the high-school year come under the \$13.50 rate. One-half year high-school courses are at half price. The cost of text books and postage is additional. All fees are to be paid at registration and are not refunded for discontinuance.

## TIME FOR COMPLETION.

The time allowed for the completion of a three-hour course is six months, if only one course is taken in the period. An extension of six months may be granted, but only when the student gives evidence that such extension is needed because of circumstances beyond his control. Renewals for courses may be made on payment of a fee of \$3.50. Students are advised not to undertake more than one course at a time, so that they can devote all the time possible to that course until it is completed. The number of courses a student may take in a year is limited only by the hours that he can devote

to study and his ability to do the work in a satisfactory manner.

### CREDIT.

Regular credit is given in formal courses only when the student has passed a final examination under arrangement with the instructor. Preparatory courses may be taken by correspondence until all the requirements for entrance to the University are met, but as one year of residence work is necessary for the University degrees, not all the work for a degree can be done by correspondence. However, the residence requirement can be met during summer schools. Practically all courses are standardized into three-hour, or double three-hour courses.

### HELP, SUGGESTIONS, ETC.

As the purpose of the correspondence study department is to aid the students, no student need hesitate to write to the director in regard to his needs, as to courses, etc., or to the instructor in regard to the difficulties that arise from the work.

The student should feel free to ask questions on all points that are not clear to him and to ask that courses be given which he needs in his every day work, or for obtaining a college degree. For example: Teachers wishing to prepare for the State examination or for teaching courses that they have not had in school, may wish courses not listed in this bulletin. If they will



write the director their wants, an attempt will be made to have such courses given as are required.

### FACULTY.

David Ross Boyd, Ph. D., President of the University.

Charles E. Hodgkin, B. Pd., Dean, School of Education.

Charles T. Kirk, Ph. D., Professor of Geology.

Lynn Boal Mitchell, Ph. D., Professor of Latin and Greek.

Ralph M. Barton, A. B., Professor of Mathematics.

S. Griswold Morley, Ph. D., Professor of Modern Languages.

V. A. Suydam, Ph. D., Professor of Physics and Electrical Engineering.

E. W. Gruer, B. S., Acting Associate Professor of Chemistry.

C. E. Bonnett, B. S., A. B., B. Pd., Professor of Economics, Political Science and Sociology, and in charge of University Extension Work.

Ethel A. Hickey, A. B., Associate Professor of English.

Nellie Dean, A. B., Associate Professor of History.

Asa Orrin Weese, A. B., Associate Professor of Biology.

Irwin M. Ristine, A. M., Associate Professor of Psychology.



## EDUCATION.

PROFESSOR C. E. HODGIN.

### 1a. *History of Education.*

Significance of primitive education. The character of education in oriental countries, and ancient classical nations. Education in Europe before and after the Reformation, including study of great educational leaders. Consideration given to the present school systems of England, Germany and France. 3 hour course.

### 1b. *Education in the United States.*

Educational conditions in colonial, revolutionary and reorganization periods. Study of leading educational institutions, and state systems including the school system of New Mexico. 3 hour course.

### 2. *Principles of Education.*

In the general view of the subject, consideration is given to the nature and principles of Education; the teaching process; analysis and synthesis; induction and deduction; empirical and scientific method; the doctrine of interest; correlation of studies; theory of culture epochs, and literature on the subject of General Method. 3 hour course.

## PSYCHOLOGY.

ASSOCIATE PROFESSOR I. M. RISTINE.

### 1. *Principles of Psychology.*

Introduction, anatomy and physiology of the central nervous system, states of consciousness, sensation, in

tensity and relativity of sensation, sight, hearing, touch including temperature and pain sensations, habit, formation and significance of habit, consciousness and fringe consciousness, the self, the empirical and the pure ego, conception, attention, dispersed and concentrated attention, importance of sustained attention. College credit given. 3 hour course.

## ECONOMICS, POLITICAL SCIENCE AND SOCIOLOGY.

PROFESSOR C. E. BONNETT.

### *Preparatory Courses.*

#### 1. *Elements of Economics.*

This course deals with the facts of Economics in an elementary manner suited to the high-school student and to the man who wants some insight into present-day economic problems. One-half preparatory course.

#### 2. *Civil Government.*

A treatment of the actual government in the United States is the feature of this course. Local, State and national governments are discussed. This course will be of value to the voter as well as to the high-school teacher and student, since the practical problems of government are the main consideration, and not primarily a theory of government as it is supposed to be and yet is not. One-half preparatory course.

#### 3. *Elements of Sociology.*

Designed to introduce into the high-schools of the

State the study of the more important problems of society, this course is adapted to the understanding of anyone of common-school education. One-half preparatory course.

NOTE: These courses will be of great value to high-school teachers attempting to teach these subjects for the first time, or to teachers of history who have not studied these subjects recently if at all.

### *University Courses.*

#### *1. Principles of Economics.*

Economic principles are studied intensively in this course. It affords a comprehensive view of these principles operating in the commercial and industrial world. Some of the problems of great interest at present that are examined and solutions considered, are the trust problem, the problems of railroad rate regulation, of taxation, and of industrial warfare. Double three-hour course.

#### *2. American Government and Politics.*

This course offers a thorough-going study of the governmental institutions as to origin, methods used in making and administering laws, and in securing the expression of the will of the people. While constitutions are studied intensively in the course, the actual workings of the government through the party system are given as much attention, since the practical operation is as important as the principles upon which the government is based. Three-hour course.

### 3. *Principles of Sociology.*

Practical problems of society are here considered in the light of the principles of sociology, among these problems being social misery, pauperism and crime, labor legislation, socialism, etc. Three-hour course.

NOTE: In addition to the above courses more advanced courses will be offered if there is a demand for such. For example students may enroll in Money or Banking, in Labor Problems, or even in as specialized course Employers' Associations, in Industrial Peace and Warfare; Taxation, Municipal Government, or Governments in Europe, Political Parties, Introduction to Political Science, Economic History of the United States, on obtaining the consent of the instructor.

## HISTORY.

ASSOCIATE PROFESSOR N. DEAN.

### *Preparatory Department.*

#### A. *Greek History.*

A general course in Greek history preceded by a brief survey of the Oriental peoples. One-half preparatory course.

#### B. *Roman History.*

A general course in Roman history from the republic to the later empire. One-half preparatory course.

### *College Department.*

#### *English History.*

1. The following periods will be considered: Britain before the coming of the Northmen; Anglo-Saxon England; the Norman Conquest; reorganization of the central government; the early Angevin kings; constitutional and social progress; the Hundred Years'

War; the Wars of the Roses; transition from mediæval to modern England. 3 hour course.

2. The "New Monarchy"; the early Stuarts—civil war; the Commonwealth; the later Stuarts—the supremacy of parliament; the rise of party government; the foundations of the British Empire; period of reform; problems of recent English history. 3 hour course.

*American History.*

1. Period of discovery and exploration; colonization; inter-colonial wars; colonial life and institutions. 3 hour course.

2. The American Revolution and its results; The making of the constitution and organization of the government; territorial expansion; secession and civil war; the new nation. 3 hour course.

ENGLISH LANGUAGE AND LITERATURE.

ASSOCIATE PROFESSOR E. A. HICKEY.

*Preparatory English Composition.*

1. A course substantially equivalent to the composition work of the last two years in high school, and definitely intended to prepare for college composition. Teachers in secondary schools will find the course helpful in their work. The work consists of themes based mainly on the students' own experience and observation, and of exercises illustrating the main principles of rhetoric. Double preparatory course.

2. *History of the Novel.*

A course covering the development of the English novel, with readings from Defoe to the modern novelists. 3 hour course.

3. *The Poetry of the Nineteenth Century.*

A course in the history of poetry from Wordsworth to Tennyson, with reading of the work of each poet. 3 hour course.

SPANISH.

PROFESSOR S. G. MORLEY.

1. *Spanish Drama of the 19th Century*, Reading. 3 hour course.

2. *Advanced Composition and Grammar.* Open only to those who have had two years of college Spanish or its equivalent. 3 hour course.

GREEK LANGUAGE AND LITERATURE.

PROFESSOR L. B. MITCHELL.

NOTE: Greek 1 and 2 may be counted as two units towards meeting the entrance requirements of the University. Any course not offered as an entrance subject, may earn three credits towards the Bachelor's degree. The beginning courses are arranged to meet the needs of maturer students, who desire by close application to cover a maximum of ground in a minimum of time. Two years study of Latin is a prerequisite, except for 4.

ELEMENTARY GREEK.

1a. Benner and Smyth, *Beginner's Greek Book*, pp. 1-220. These lessons include the commonest noun, adjective, and pronoun declensions, the Omega system of verbs, some essentials of syntax, exercises in transla-

tion, and a vocabulary of about 600 common words of the Attic dialect.

1b. Benner and Smyth, completed, including contract nouns, adjectives, and verbs, the *Mi* verbs, some simplified Anabasis, and additional vocabulary.

2a. *The Anabasis of Xenophon*, Book 1, chapters 1-4. The lessons in this section involve constant review of past work, further grammatical and syntactical studies and translation into Greek of simple sentences based upon the text read.

2b. *The Anabasis*, continued through Book III. Translation of the text, grammar, and composition. Two units of preparatory work.

### 3. *Attic Greek Prose.*

A study of Socrates and his teachings, based on the Memorabilia of Xenophon, and the Apology of Plato in the original and references to English translations of other works of Plato.

NOTE: The following course is designed for those who have no knowledge of the Greek language but who, as individuals or as literary clubs, wish to become acquainted with some of the masterpieces of the Greek literature. The development of each species of literature under the hands of the Greeks is studied. The instructor of these courses expects soon to be prepared to give a short course of two or three illustrated lectures before those clubs that may wish as a body to make an informal study of Greek drama.

### 4. *The Drama.*

*The Rise and Development of the Drama Among the Greeks and Romans.* Intensive study of several Greek



plays and outside reading of other plays of Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, and Seneca.

NOTE: Courses may also be arranged for in Greek Oratory, Greek Philosophy, and Homer's Iliad.

## LATIN LANGUAGE AND LITERATURE.

PROFESSOR L. B. MITCHELL.

### NOTE A.

Courses 1-6 are intended for three classes of students: (1) those who are preparing to enter college. In this case, courses 1, 2, 3, and 5 would satisfy the entrance requirements of the University; (2) those who wish to study Latin for their own benefit; (3) teachers of Latin who desire better to equip themselves for their work.

Any course listed below may receive University credit towards the Bachelor's degree, provided it be not used by the student to satisfy the entrance requirements.

Courses 1, 2, 3, and 5 are double three-hour courses. No credit is given until both parts are passed.

1. *Elementary Latin*. Double three hour course. An elementary text book is completed and the first book of Caesar's Gallic War is read in simplified form.

2. *Caesar, De Bello Gallico and Latin Composition*. Double course, divided somewhat as follows:

A. *Books II and IV*. Review of forms and syntax. 35 lessons in translation and 15 in composition.

B. *Book V and other rarely read*, but valuable, portions of Book VI and VII, to equal Books I-IV in amount for the whole course. Grammar and syntax. Fifteen of the fifty lessons consist of translation into Latin.

3. *Cicero's Orations and Composition.*

This course consists of translation and composition divided as in course 2. Enough composition is thus given in 2 and 3 to amount to one recitation per week for a year and a half in a standard high school, a year having 36 to 40 weeks.

It is now supposed that the student is fairly well grounded in the grammar and syntax of the language, so attention is called only to the rarer constructions. The chief aims of the course are to understand the content of the orations read, and to develop the art of translating into clear and vigorous English. Like 2, this is a double course.

A. *The four orations 'In Catilinam' and composition.*

B. *The orations 'Pro Lege Manilia' and 'Pro Archia' and composition.*

4. *Sallust's Catiline and Composition.*

This is accepted by the University instead of 3a, and is recommended as an interesting variation for part of the third year's work in the high school. The course includes the same composition as is given in 3a, but different work will be provided for those students who have already taken 3a. 3 hour course.

5. *Vergil's Aeneid.*

A. *Books I-II.* The work includes translation, prosody, poetic constructions, and rhetorical figures.

B. *Books III-VI.* Continues the work of A, and

adds the reading in English of other epic poems, and, in connection with Book VI, a comparison of Vergil's and Dante's notions of the life beyond the grave. Double three-hour course.

6. *Latin Prose Composition.*

The composition portions of courses 2 and 3 are here offered as a distinct course for the convenience of those who desire only that part of the work. 3 hour course.

7. *Advanced Composition.*

Translation of connected discourse of modern difficulty. Intended for teachers and for those who contemplate taking the Rhodes' Scholarship Examinations, and for those who wish to study some of the niceties of the Latin style. 3 hour course.

NOTE: Further courses in translation are offered as follows: (A) Selections from Livy; (B) Horace, Odes and Epodes; (C) Horace, Satires and Epistles; (D) Sallust, Jugurtha; (E) Selections from Catullus, Tibullus, and Propertius; (F) Cicero, De Natura Deorum.

The following are much shorter. Any two may be combined for a course; (G) Cicero, De Senectute; (H) Cicero, De Amicitia; Plautus; (I) Menaechmi; (J) Mostellaria; (K) Captivi; (L) Terence, Phormio; (M) Selected Latin Hymns; (N) Juvenal, Selected Satires.

A student in applying for any of these should state what Latin authors he has already studied.

## BIOLOGY.

ASSOCIATE PROFESSOR A. O. WEESE.

1. *General Biology.*

This course corresponds to a preparatory course in general biology and is intended for elementary stu-

dents wishing to obtain credit for college entrance and for teachers who wish assistance in organizing their courses. Special attention will be paid to New Mexico forms of life and local conditions will be emphasized for each individual student. The amount of equipment will be reduced to a minimum. 3 hour course.

2. *Elementary Physiology.*

A standard course in Human Physiology and Hygiene, with especial reference to the application of principles taught in school and home. This course prepares the student for the Teachers' Certificate Examination, and credit is given toward college entrance. 3 hour course.

3. *Zoology.*

This course corresponds to about one-half of the regular Course 1 in Biology as described in the regular Catalog. Those portions of the course requiring the use of expensive apparatus are necessarily omitted in the home study course. The student will be required to furnish simpler apparatus, such as a dissecting set, a good hand lens, etc. 3 hour course.

4. *Botany.*

This course corresponds in the same way as the preceding to the regular Biology 2. A study of the plant forms in the immediate neighborhood of the individual student forms the basis of this course. College credit given for satisfactory completion. 3 hour course.

NOTE: More advanced courses may be arranged for by consultation with the professor in charge.

## CHEMISTRY.

ACTING ASSOCIATE PROFESSOR E. W. GRUER.

### 1. *Foundations of Chemistry.*

This course deals with the general and basic principles and facts of the science of chemistry. The application of these facts and principles to industry and daily life will be an important feature of the work. In short, the humanistic side of the science will be developed as far as possible. Though not required, the investment of a very small sum in some simple chemical apparatus will lend an added interest and charm to the work. 3 hour course.

## GEOLOGY.

PROFESSOR C. T. KIRK.

NOTE: Deposits are required in courses where samples or apparatus are lent the student, and he is required to pay postage or other carriage on all materials.

### 1. *Mineralogy.*

This course requires much work with chemicals, the blowpipe and other apparatus. Some of the apparatus is supplied, but the student will have to devise part of it. Characteristic samples of the common minerals, ores, and rocks are lent the student for identification and for illustration of the theoretical work. A collection identified by himself is required, but will be checked over and returned if he so desires. Occurrence, association, and origin are studied closely. The work requires at least an elemental knowledge of chemistry, and would be much helped by a previous study of

physics. Any standard modern text book is approved, but only a certain work will be recommended. Access should also be had to additional references on occurrences, associations, prices, and the like. 3 hour course.

## 2. *Physiography.*

This work deals with land forms as caused by action of the atmosphere, rivers, underground waters, the ocean, etc. Besides the principles of weathering, erosion, and sedimentation, there are studied also the causes and results of earthquake action, and other movements within the earth's crust. In case the student has not taken mineralogy, a labeled collection of the common minerals and rocks may be lent him, when in turn, a collection identified by him is required. The latter will be returned if the student so desires. An elementary knowledge of chemistry and physics is helpful in this work, but is not absolutely necessary. A standard text book is recommended and topographic maps used throughout the course. 3 hour course.

## 3. *Economic Geology.*

This treats of the useful geologic resources, both metallic and non-metallic—their occurrence, origin, production, and conservation. Labeled samples of ore minerals and gauges are lent the student, and he is required to submit a collection identified by himself, to be returned if he so wishes. The course cannot be pursued to advantage without a knowledge of chemistry,



mineralogy, and possibly physics, and would better follow a course in elementary geology of physiography. A standard text is used, and this supplemented by reference to such publications as those of the U. S. Geological Survey and various State surveys. 3 hour course.

## PHYSICS AND ENGINEERING.

PROFESSOR V. A. SUYDAM.

### 1. *General Physics.*

Mechanics, heat, light, electricity and magnetism. Three hours credit.

### 2. *Shop Sketching.*

Principles of mechanical drawing, screws and screw fastenings, sections, assembly and drawing details, clearing, isometric drawing, freehand drawing. Three hours credit.

### 3. *Reinforced Concrete Construction.*

Concrete, steel, concrete and steel in combination, rectangular beams, slab, beam and column diagrams, bending and direct stress, theory of stability, design, construction, floors; types of reinforcement, roofs, columns, foundations, walls and partitions, stairs, elevator shafts, provision for expansion and contraction, shear in columns, wind stresses, design of factory building. materials, forms, bending and placing of reinforcement, proportioning and placing of concrete, finishing concrete surfaces, waterproofing of concrete, construction



plant, estimating unit costs, estimating quantities. Double three hour course.

NOTE: Other courses will be given in this Department should there be demand for them. Among these courses are Elements of Structures, Steam Boilers, Electrical Meters, Shop Arithmetic, Shop Mathematics.

## MATHEMATICS.

PROFESSOR R. M. BARTON.

### 1. *College Algebra.*

A rapid review of the principal parts of elementary algebra; graphical representation; ratio; proportion; progressions; permutations and combinations; probability; binomial theorem, logarithms; partial fractions; determinants; theory of equations.—Ashton's College Algebra. 3 hour course.

### 2. *Analytical Geometry.*

Rectangular and polar co-ordinates; straight line; circle; parabola, ellipse, hyperbola, and general equations of the second degree and higher plane curves. 3 hour course.

### 3. *Plane and Spherical Trigonometry.*

The six trigonometric functions and their relations; trigonometric analysis; inverse functions; graphical representations; solution of oblique triangles; theory and use of logarithms. Right and oblique spherical triangles; applications of spherical trigonometry to the celestial and terrestrial spheres. Prerequisite: Math. 3. Granville's Trigonometry. 3 hour course.



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4. *Differential and Integral Calculus.*

Differentiations of algebraic and transcendental functions; derivatives as rates; successive differentiation and integration, maxima and minima; definite integrals; applications of integration to geometry and mechanics. Prerequisite: Math. 1, 2, 3. Townsend & Goodenough's Calculus. 3 hour course.

5. *Differential and Integral Calculus.* Five-Hour Course.6. *Differential Equations.* Three-Hour Course.7. *Analytical Geometry of Three Dimensions.* Two-Hour Course.8. *Definite Integrals.* Two-Hour Course.9. *Advanced Algebra.* Three-Hour Course.10. *Theory of Equations.* Three-Hour Course.11. *Theory of Probability.* Two-Hour Course.12. *General Astronomy.* Three-Hour Course.13. *History and Teaching of Elementary Mathematics.* Three-Hour Course.

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For further information address the Professor in charge of the work, or the Director,

PROFESSOR C. E. BONNETT,

University of New Mexico,

Albuquerque, N. M.

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